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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,298	10/31/2003	Ernst H. A. Granneman	ASMINT.057AUS	2692
20995	7590	07/08/2005	EXAMINER	
KNOBBE MARTENS OLSON & BEAR LLP			WILSON, CHRISTIAN D	
2040 MAIN STREET			ART UNIT	
FOURTEENTH FLOOR			PAPER NUMBER	
IRVINE, CA 92614			2891	

DATE MAILED: 07/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/700,298

**Applicant(s)**

GRANNEMAN ET AL.

**Examiner**

Christian Wilson

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
- 4a) Of the above claim(s) 52-56 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-26 and 28-51 is/are allowed.
- 6) ☒ Claim(s) 1, 17, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 2-16, 18 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12242003.03092004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: search history.

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election without traverse of claims 1 – 51 in the reply filed on April 13, 2005 is acknowledged.
2. Claims 52 – 56 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 13, 2005.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 17, 19, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Soininen *et al.*

Soininen *et al.* (US 6,679,951) discloses a method of thermal treatment comprising the steps of providing a reactor having one or more furnace bodies [column 4, line 16] with substantially flat boundary surfaces [Figure 1], heating one of the furnace bodies to a predetermined furnace body temperature [column 4, line 36], placing the substrate adjacent and parallel to the furnace body so that it faces the furnace body [column 4, lines 40-45], keeping the

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substrate adjacent to the boundary surface during a heat-up time to a substrate temperature which is at least 20 °C less than the furnace body [column 4, line 37], and removing the substrate from the reactor while cooler than the furnace body [column 5, lines 25-30].

Regarding claim 17, Soininen *et al.* further discloses two furnace bodies with the substrate between the bodies [Figure 1].

Regarding claim 19, Soininen *et al.* further discloses emitting a gas toward the substrate from the first and second furnace bodies to support the substrate [column 4, lines 15-20].

Regarding claim 20, Soininen *et al.* further discloses heating the furnace body before placing the substrate adjacent to the body [Figure 1].

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

#### ***Allowable Subject Matter***

5. Claims 2 – 16, 18, and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: regarding claim 2, applicant discloses, in the context of the entire claim, a lower heat transfer

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rate during the holding time than during the heat-up time. Regarding claim 18, applicant discloses, in the context of the entire claim, the temperature of the first furnace body is the same as the temperature of the second furnace body. Regarding claim 21, applicant discloses, in the context of the entire claim, heating the substrate to a desired substrate temperature less than the first and second temperatures. Regarding claim 37, applicant discloses, in the context of the entire claim, maintaining a first thermal treatment temperature for a first holding period, heating to a second temperature higher than the first thermal treatment temperature, and maintaining a second thermal treatment temperature for a second holding period.

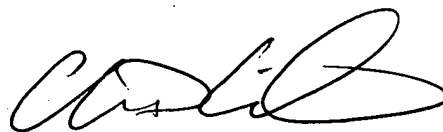
### ***Conclusion***

7. A copy of the search history is enclosed.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian Wilson whose telephone number is (571) 272-1886. The examiner can normally be reached on weekdays, 7:30 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Baumeister can be reached on (571) 272-1722. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Christian Wilson, Ph.D.  
Primary Examiner  
Art Unit 2891

CDW